REMARKS

Claims 1-47 are pending in the application. Claims 1 and 24 have been amended herein. Favorable reconsideration of the application, as amended, is respectfully requested.

I. REJECTION OF CLAIMS 1-47 UNDER 35 USC §103(a)

Claims 1-9, 14, 16, 22-33, 38, 40 and 46-47 stand rejected under 35 USC §103(a) based on *Woodgate et al.* in view of newly cited *Hart*. Claims 10-13, 17-20, 34-37 and 41-44 stand rejected under 35 USC §103(a) based on *Woodgate et al.* in view of *Hart*, and further in view of newly cited *Taniguchi et al.* Claims 15, 21, 39 and 45 are rejected under 35 USC §103(a) based on *Woodgate et al.* in view of *Hart*, and further in view of newly cited *Battersby*.

Applicants respectfully request withdrawal of each of the above rejections for at least the following reasons.

The Rejection:

In rejecting claims 1 and 24, the Examiner admits that *Woodgate et al.* does not teach the feature of a "transflective spatial light modulator". For this, the Examiner relies on newly cited *Hart*.

More particularly, the Examiner asserts that *Hart* teaches the use of a transflective LCD as described in column 18, lines 36-41. In addition, the Examiner asserts that the term "transflective" is a well known term used in the art of displays for permitting the viewing of image data on a transflective LCD. The Examiner argues that it would have been obvious to one of ordinary skill in the art to combine the teachings of *Woodgate et al.* and *Hart* to produce a display of three-dimensional images for viewing in a high quality manner.

Control of Crosstalk Level:

Hart relates to a method and apparatus for making holograms by exposing a film substrate or other light sensitive medium to consecutive two-dimensional images, together representative of a three-dimensional system. *Hart* describes using a CRT 444 to project data onto a light valve. As noted by the Examiner, *Hart* also teaches that the CRT 444 could be replaced by any suitable mechanism such as a reflective, transmissive or transflective LCD, which panel may be selectively energized on a pixel by pixel basis to thereby replicate the data corresponding to each particular data slice. (See, e.g., column 18, lines 36-41).

Applicants do not dispute that a transflective display may be used in an autostereoscopic display. In fact, applicants specifically acknowledge the existence of autostereoscopic displays utilizing a transflective display in the present application itself. (See, e.g., Spec., last para. beginning on page 2, and first full para. on page 3). Rather, applicants point out that image quality in such conventional displays may suffer due to crosstalk. To wit:

> *However, in many viewing conditions, ambient light is reflected to the eyes of an observer from the display so that an observer sees a mixture of light transmitted from the backlight through the SLM and ambient light modulated by the SLM and reflected, for example, by the microreflective structure 12 shown in Figure 2. Whereas transmitted light modulated by the left and right eye images is seen substantially only by the left and right eyes, respectively, of the observer, reflected light is seen by both eyes of the observer and this may contribute greatly to image crosstalk which degrades the 3D effect.* (Spec., p. 3, lns. 8-16).

According to the present invention, a controller is able to adjust the intensity of the pixels of the second region according to a crosstalk level selected by a user. Based on the change in crosstalk level, the user can decide if the display in the autostereoscopic mode is optimally satisfactory.

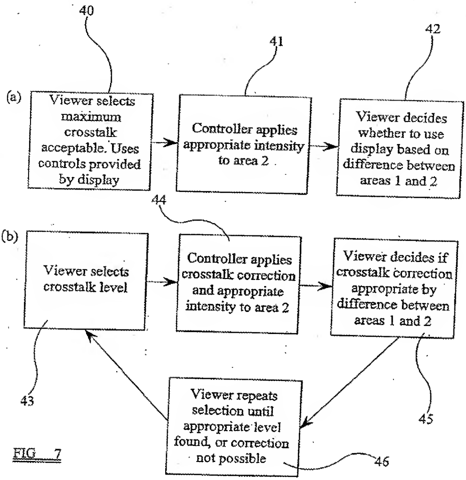

FIG 7

For example, Figs. 7(a) and 7(b) of the present application (reproduced above) illustrates steps 40, 43 in which a user selects a crosstalk level. In steps 42, 45 the viewer decides if the crosstalk correction is satisfactory. If not, the user can repeat the selection of the crosstalk level in step 46 until the user decides whether a satisfactory crosstalk correction is achieved.

In order to emphasize further such features of the invention, applicants have amended claims 1 and 24 to recite how the controller is arranged to set the at least some of said pixels of the at least one second region of said modulator to a transmissivity according to a user selected crosstalk level. The cited references, taken alone or in combination, do not teach or suggest an autostereoscopic display using a transflective spatial light modulator configured as claimed and wherein the controller permits the user to select the crosstalk level as claimed.

Woodgate et al. describes that the control circuit 7 can be used to control the SLM 4 to adjust the transmissivity of the polarization means 5. (Col. 3, ln. 66 to Col. 4, ln. 4 and Col. 5, lns. 13-18). However, *Woodgate et al.* has not been shown to teach a second region's transmissivity being adjusted according to a user selected crosstalk level. Furthermore, applicants note that the crosstalk of *Woodgate et al.* is caused by an observer's viewing angle. (Col. 7, ln. 66 to Col. 8, ln. 5). This is different from the present invention where crosstalk is caused by ambient light affecting the display of the transflective (reflective and transmissive) components not present in *Woodgate et al.* Thus, *Woodgate et al.* clearly fails to teach or render obvious that a second regions transmissivity is adjusted by the controller according to a crosstalk level, which crosstalk level is caused by ambient light in relation to the transflective components of the display.

Regarding *Hart*, the reference describes a system for making holograms which of course is completely different from a transflective display and the control of crosstalk associated therewith. *Hart* makes no mention of crosstalk. Similar to *Woodgate et al.*, *Hart* also fails to teach or render obvious an autostereoscopic transflective display in which a controller is arranged to set the pixels of the second region to a transmissivity according to a user selected crosstalk level as recited in amended claims 1 and 24.

Reliance on Woodgate et al. and Taniguchi et al. for Transmissivity Control:

Original claims 11 and 35 recite specifically the aspect of a manually operable control for selecting any one of different second transmissivities. Citing column 10, lines 44-51 of *Woodgate et al.*, the Examiner contends that *Woodgate et al.* discloses that input polarizers 31 and 33 can be inputted by the user for manually selecting the different transmissivities as desired. (O.A., p. 12). Applicants respectfully disagree. Specifically, *Woodgate et al.* discloses:

> *The input polarisers 31 and 33 and the rotator 32 are disposed substantially adjacent the liquid crystal layer 20 so that parallax problems for off-axis viewing of the image are substantially reduced or eliminated throughout a wide range of observer viewing positions. Because all of the pixels operate in the same normally white mode, contrast performances are substantially matched for a wide range of viewing positions of the observer.* (Col. 10, lns. 44-51).

Applicants respectfully submit that there is no teaching in the cited text as reproduced above, or elsewhere in *Woodgate et al.*, that refers to a user manually selecting different transmissivities as desired.

In rejecting claims 10, 13, 17 and 20, the Examiner asserts that *Taniguchi et al.* discloses the parallax barrier pattern for forming information of the transmissivity or the visual representation of the crosstalk value and the crosstalk correction of autostereoscopic image data. However, *Taniguchi et al.* is similar to *Woodgate et al.* in that it does not teach or render obvious a controller arranged to set at least some of the pixels of the at least one second region to a transmissivity according to a user selected crosstalk level as recited in amended claims 1 and 24.

More specifically, *Taniguchi et al.* merely teaches how to reduce crosstalk by synchronously changing the stripe pixels and the slit portions of the corresponding parallax barrier pattern at any timing during the display operation of the stripe images . (Col. 14, lns. 35-44). Moreover, the crosstalk of *Taniguchi et al.* appears to relate to the stripe image not being synchronized with the parallax barrier pattern. (Col. 2, lns. 26-33). Still further, *Taniguchi et al.* is directed to a transmissive type display and the crosstalk associated with the stripe image and parallax barrier pattern not being synchronized. The synchronizing of the stripe image and parallax pattern in a transmissive type display has nothing to do with controlling the transmissivity levels of respective pixel regions in a transflective display.

Battersby is cited as disclosing switching to a two dimensional mode, and does not make up for the above discussed deficiencies in *Woodgate et al.*, *Hart* and *Taniguchi et al.*

For at least the above reasons, applicants respectfully submit that the references, taken alone or in combination, do not teach or render obvious the invention as recited in claims 1-47. Withdrawal of the rejections is respectfully requested.

II. CONCLUSION

Accordingly, all claims 1-47 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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DATE: April 27, 2008

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